PROTOCOL FOR THE OPERATION OF THE
CEDAR CHEMICAL COMPANY WASTEWATER TREATMENT PLANT
BY A CLASS 1 CERTIFIED OPERATOR
UNDER CONTRACT WITH THE
ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

MONITORING & PUMPING

The operator will monitor water levels in the storm water retention basin and wastewater treatment system on a weekly basis and immediately after any rainfall event(s) totaling one (1) inch or more in a 24 hour period. The operator shall operate existing pumps, valves, pipes, and other equipment as necessary to maximize retention of storm water in the wastewater treatment system and minimize retention of storm water in the storm water retention basin to the extent practical by pumping the storm water to the finishing pond and/or the equalization pond. The storm water retention basin shall be considered empty to the extent practical when the storm water pumps automatic controls shut off, or some other level mutually approved by the HWD and NPDES Branch.

In the event any pond in the wastewater treatment system reaches **three feet of freeboard**, the operator shall operate existing pumps, valves, pipes, and other equipment to transfer the wastewater to another wastewater treatment pond with available capacity. In general, the finishing pond should be transferred to first, followed by the equalization pond, the clarifier, and lastly the biomonitoring pond. The operator will make every effort not to transfer water from or to the biomonitoring pond. If transfer from or to the biomonitoring pond is necessary based on its freeboard capacity, the operator shall notify ADEQ to obtain authorization. The operator shall only discharge from the finishing pond to the Mississippi River via Outfall 002 once the operator has received verbal authorization from ADEQ per the REPORTING requirements below.

REPORTING

The operator shall maintain a record of the dates and duration of transfer of water between ponds in the storm water or wastewater treatment system. The operator shall immediately notify Clay McDaniel, HWD, by telephone whenever there is less than three feet of freeboard left in the finishing pond, or transfer from other ponds will result in less than three feet of freeboard in the finishing pond, in order to obtain authorization from ADEQ to discharge from the finishing pond via Outfall 002. If Clay McDaniel can not be reached for authorization, the operator shall telephone Mo Shafii, NPDES Branch of the Water Division, and/or Dick Cassat, TSD, to obtain authorization. If none of the Division representatives can be reached, the operator shall telephone Dawn Guthrie, Legal Division Chief, to obtain authorization. **The same telephone authorization/notification protocol shall be used by the operator if any problems or emergencies are encountered.**

After obtaining authorization from ADEQ for discharge, the operator shall sample the effluent in accordance with the SAMPLING REQUIREMENTS below. The discharge shall continue until at least six feet of freeboard is obtained but in no case shall the pond be pumped dry. The duration (dates and times) and volume of the discharge shall be recorded in a log book (and transmitted to Clay McDaniel along with any observable impacts on the receiving water).

Flow will be recorded in a log book in millions of gallons per day (MGD) every time a discharge occurs. The flow meter will be calibrated once per year and checked monthly (or upon the next discharge if discharge is less frequent than monthly) according to the manufacturer's specifications. Calibration results will also be recorded in the log book (and transmitted to Clay McDaniel).

At least on a weekly basis, the operator shall transmit reports of his activities, including any observations of freeboard levels; hours worked; copies of log book entries; duration and volume of discharges; flow and flow meter calibration; pH and pH meter calibration: comments of any observable impacts on receiving water; and monitoring results to Clay McDaniel. These weekly reports will be distributed by Clay McDaniel to Mo Shafii and Dick Cassat.

SAMPLING

Because discharge is intermittent and primarily constitutes storm water, sampling for the parameters below will occur at Outfall 002 each time a discharge occurs from the wastewater treatment system. Sampling containers, coolers, and a FedEx account shall be given to the operator by ADEQ to be used during the sampling events.

- A 24-hour composite sample and duplicate sample will be collected for Biochemical Oxygen Demand (BOD5), Total Organic Carbon (TOC) (as a surrogate for Chemical Oxygen Demand (COD), and Total Suspended Solids (TSS) each time there is a discharge but no more frequently than once per week. A 24-hour composite sample is defined as four grab samples during a 24-hour period. If the duration of the discharge is less than 24 hours, the sample will be collected for the entire duration of the discharge but in no case will exceed 24 hours. The actual time period of the discharge and sampling event will be noted on the sampling log and chain-of-custody. The sample will be collected according to EPA Methods 405.1, 410.1, and 160.2 (Standard Methods 5210.b and 2540.d) using a time-sensitive composite sampler. Samples will be collected in 2L plastic "milk" jugs that have been rinsed with effluent water. The sample container will be placed on ice and transported within 24 hours of the end of the sampling event to Dick Cassat, TSD, for analysis.

- A grab sample for pH will be collected each time there is a discharge. The grab sample will be analyzed onsite utilizing a calibrated pH meter. The pH meter shall be calibrated before each sampling event and the calibration records kept in a log book alongside the pH results for the sampling event.

- On the first discharge of the calendar quarter, two 24-hour composite samples will be collected for acute biomonitoring for *Daphnia pulex* and *Pimephales promelas*. The samples will be collected in accordance with EPA's "Short-Term Methods for Estimating the Chronic

Toxicity of Effluents and Receiving Water to Freshwater Organisms." The samples will be collected in four, half-gallon plastic "milk" jugs which will be rinsed with effluent water prior to sample collection. The containers will be preserved on ice and transported to a certified laboratory within 12 hours of sample collection.

No other samples will be collected unless results of the sampling indicate further sampling is required. Because the storm water system flows into the wastewater treatment system, no samples will be collected separately from the storm water system provided that no uncontrolled releases occur.

When the discharge is complete, the operator shall send written notice (via email or fax) to Clay McDaniel of the duration of time and volume of the discharge along with any observable impacts on the receiving water.

Within 24 hours of the conclusion of sampling by the operator, BOD, TOC (as a surrogate for COD), and TSS samples will be transported by a TSD representative to the ADEQ Laboratory for analysis. If a representative from TSD can not be present to transport the samples, the samples will be shipped by the operator via FedEx to ADEQ. Results of the pH monitoring conducted by the operator will be forwarded to Clay McDaniel and subsequently forwarded to Dick Cassat and Mo Shafii. Within 12 hours of the conclusion of acute biomonitoring sampling by the operator, the samples will be transported by a TSD representative to a certified laboratory for analysis. If a representative from TSD can not be present to transport the samples, the samples will be shipped by the operator via FedEx to the certified laboratory.